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09/332,756 06/14/99 WEE

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CH IEN-WEI CHRIS CHOU ESQ
OPPENHEIMER WOLFF & DONNELLY LLP
P.O. BOX 10356
PALO ALTO CA 94304

IM52/0410

EXAMINER

JOHNSON, J

ART UNIT

PAPER NUMBER

1725

DATE MAILED:

04/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/332,756

Applicant(s)

WEE ET AL.

Examiner

Jonathan Johnson

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) 14-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1-47 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election of Group I, Claims 1-13 in Paper No. 5 is acknowledged. because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Objections

Claim 6 is objected to because of the following informalities: In line 2, please replace "anoptical" with --an optical--. Appropriate correction is required.

Claim 2 is objected to because of the following informalities: In line 3, please replace "beamsplitter" with --beam splitter--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claim 1, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-2, 5, and 9-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobsa (6,163,010). With respect to Claim 1, Kobsa teaches a laser apparatus comprising a laser generator for generating an output laser beam (Figure 2, Item 52); a beam conditioner responsive to the output laser beam and operative to generate a conditioned laser beam, the beam conditioner including a beam expander responsive to the output laser beam (Figure 2, item 70); and a variable beam attenuator responsive to the expanded laser beam (Figure 2, item 60); a beam steerer for directing the marking beam to a surface of the workpiece (Figure 2, Item 38); and a materials handler for positioning the workpiece in the path of the marking beam (Figure 2, Items 34 and 36).

With respect to Claim 2, the teachings of Kobsa are the same as relied upon in the rejection of Claim 1. Kobsa teaches a variable beam attenuator includes a first optical plate responsive to the expanded laser beam and operative to generate a conditioned laser beam (Figure 2, Item 60); and a beam splitter responsive to the conditioned laser beam and a operative to split the conditioned laser beam into a plurality of beams including the marking beam (Figure 2, Item 80).

With respect to Claim 5, the teachings of Kobsa are the same as relied upon in the rejection of Claim 1. Kobsa teaches a beam sampler and detector, the beam sampler being positioned in the path of the marking beam (Figure 2, Item 80) and capable of passing a sample of the marking beam to the detector, the detector capable of receiving the sample and generating a signal responsive to the fluence of the marking beam (Figure 2, Item 102).

With respect to Claim 9, the teachings of Kobsa are the same as relied upon in the rejection of Claim 1. Kobsa teaches a processor capable of receiving one or more signals such as the pattern of marks to be placed on the workpiece (Column 6, Lines 1-35).

With respect to Claim 10, the teachings of Kobsa are the same as relied upon in the rejection of Claim 1. Kobsa teaches a laser generator (Figure 2, Item 52). It is the examiner's position that how the laser is being operated is a method limitation that holds little patentable weight in an apparatus claim.

With respect to Claim 11, the teachings of Kobsa are the same as relied upon in the rejection of Claim 1. Kobsa teaches a beam is scanned across a portion of the surface in a pattern (Column 8, Example 2).

With respect to Claim 12, the teachings of Kobsa are the same as relied upon in the rejection of Claim 1. Kobsa teaches a movable beam conditioner (Figure 2, item 70, 60, and 38).

With respect to Claim 13, the teachings of Kobsa are the same as relied upon in the rejection of Claim 1. Kobsa teaches the laser beam is in pulses (Column 4, Lines 30-37) as well as a movable base (Figure 2, Items x and y). It is the examiner's position that one can change the laser beam scanning speed by moving the base.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Kobsa (6,163,010) as applied to claim 2 above, and further in view of Johnson et al. (5,057,664).

Johnson et al. teaches the first optical plate is rotatable along an axis parallel to the laser beam and operative to vary the fluence of the marking beam (Figure 2, Item 12a).

Kobsa and Johnson et al. are analogous art because they are from the same field of endeavor, which are laser stations. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the laser of Kobsa to utilize a the wave plate in order to minimize the striation formations (see Johnson et al. Column 3, Lines 40-45).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Kobsa (6,163,010) and Johnson et al. (5,057,664) as applied to claim 2 above, and further in view of Stovell et al. (4,335,939).

Stovell et al. teaches the first optical plate is a half wave plate (Column 5, Lines 15-20)

Kobsa, Johnson et al., and Stovell et al. are analogous art because they are from the same field of endeavor, which are laser stations. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the combined invention of Kobsa and Johnson et al. to utilize a half wave plate in order to control the pattern orientation with respect to the optical axis of the material (see Stovell et al. Column 5, Lines 10-20).

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Kobsa (6,163,010) as applied to claim 1 above, and further in view of Maruyama (4,547,651).

Kobsa teaches a variable beam attenuator includes a beam splitter (Figure 2, Item 80);

Maruyama teaches an apparatus comprises an optical isolator for optically isolating the laser generator from a reflection of the marking beam to the laser generator (Column 2, Lines 1-4) and the optical isolator including a second optical plate positioned in the path of the beam (Column 2, Lines 50).

Kobsa and Maruyama are analogous art because they are from the same field of endeavor, which are laser stations. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the laser of Kobsa to utilize a second wave plate in order to render a smooth cut surface (see Maruyama Column 1, Lines 36-40).

With respect to Claim 7, the teachings of Kobsa and Maruyama are the same as relied upon in the rejection of Claim 6.

Maruyama teaches the second optical plate is a quarter wave plate (Column 2, Lines 5-10).

Kobsa and Maruyama are analogous art because they are from the same field of endeavor, which are laser stations. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the laser of Kobsa to utilize a quarter wave plate in order to render a smooth cut surface (see Maruyama Column 1, Lines 36-40).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Kobsa (6,163,010) as applied to claim 1 above, and further in view of Johnson et al. (5,057,664).

Johnson et al. teaches the laser generator includes a q switched diode pumped laser (Figure 1, Item 18).

Kobsa and Johnson et al. are analogous art because they are from the same field of endeavor, which are laser stations. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the laser of Kobsa to utilize a smaller and more reliable pulsed emission (see Johnson et al. Column 1, Lines 35-45).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Abella et al. (6,130,402); Miyakawa et al. (6,091,047); Masuda (5,298,718); Hackel et al. (6,037,565); Chang et al. (6,057,525); Goulas et al. (FR 2772910); Susemihl (4,908,493); Balamane et al. (6,049,056); Barenboim et al. (6,059,555) are cited of interest.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 703-308-0667. The examiner can normally be reached on M-Th 7AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7718 for regular communications and 703-305-5885 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

jj 
April 8, 2001


TOM DUNN
PRIMARY EXAMINER
A.U. 1725